

95 41. (Amended) A portable radio communication apparatus operable to communicate with a radio communication network employing transmission by a plurality of carrier frequencies in frames each consisting of a predetermined number of time slots, the apparatus having a transmitter for transmitting data bursts during one or more of said time slots in a frame, and including monitoring means for monitoring at least one criterion associated with the heat generated by the transmitter, at least one output criterion of the transmitter being responsive to the monitored criterion, wherein one of the at least one monitored criterion comprises the number of transmitted data bursts in a frame.

REMARKS

Initially, in the Office Action dated June 7, 2002, the Examiner has rejected claims 1-5 under 35 USC §103(a) as being unpatentable over U.S. Patent No. 5,519,886 (Gilbert et al.) in view of U.S. Patent No. 6,169,884 (Funk). Claims 6-9 have been rejected under 35 USC §103(a) as being unpatentable over Gilbert in view of Funk and further in view of document ETS 300,557 (GSM 04.08 version 4.19.1). Claim 10 has been rejected under 35 USC §103(a) as being unpatentable over Gilbert in view of Funk and further in view of U.S. Patent No. 6,072,792 (Mazur et al.). Claims 11-18 have been rejected under 35 USC §103(a) as being unpatentable over Gilbert in view of Funk and further in view of U.S. Patent No. 6,091,741 (Fujiwara et al.). Claims 19-30 have been rejected under 35 USC §103(a) as being unpatentable over Gilbert in view of Funk and further in view of GSM 04.08. Claims 31-42 have been rejected under 35 USC §103(a) as being unpatentable over Gilbert in view of Funk and further in view of Fujiwara.

By the present response, Applicants have cancelled claims 3, 20, 23 and 40. Further, Applicants have amended claims 1, 19, 21, 39 and 41 to further clarify the invention. Claims 1, 2, 4-19, 21, 22, 24-39, 41 and 42 remain pending in the present application.

35 USC §103 Rejections

Claims 1-5 have been rejected under 35 USC §103(a) as being unpatentable over Gilbert et al. in view of Funk. Applicants respectfully traverse these rejections.

Gilbert et al. discloses method and apparatus for controlling device temperature during transmissions that includes a communication device supporting transmissions that provides transmission related device temperature control. The communication device has a particular portion subject to an increase in temperature resulting from the transmissions. Temperature control is affected by determining temperature information for the particular portion of the communication device and by modifying operation of the data communication protocol based in part on the temperature information.

Funk discloses a method and apparatus for reducing power in radio transmissions by substantially reducing heat build up within a mobile radio device having a radio transmitter. Device temperature in a mobile radio device is controlled by monitoring the temperature of the mobile radio device. If the temperature of the mobile radio device exceeds a threshold, then when the mobile radio device is to transmit information, transmission power of the mobile radio device is reduced thereby reducing the amount of heat generated within the mobile radio device and allowing the temperature of the mobile radio device to decrease. Transmission

power may also be reduced by instead of reducing the power level, inserting brief pauses at intervals during the transmission.

Regarding claim 1, Applicants submit that neither Gilbert et al. nor Funk, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of this claim, of inter alia, providing a signal responsive to at least one monitored criterion for controlling at least one output criterion of the transmitter where the at least one monitored criterion includes the number of transmitted data bursts in a frame. Gilbert et al. discloses a method for controlling the temperature of a wireless communication device. Gilbert et al. does not disclose or suggest manipulation of the operation of the actual power amplifier or transmitter and, therefore, cannot be regarded as disclosing a method or apparatus for controlling a transmitter as recited in claim 1 of the present application. Funk merely discloses placing pauses during the transmission or changing the transmission power level of a mobile radio device when the temperature of the device as measured as a whole becomes too hot. Neither Gilbert et al. nor Funk taken alone or in combination disclose or render obvious a method for controlling a transmitter of a portable radio communication that includes monitoring at least one criteria associated with heat generated by the transmission where the at least one monitored criteria includes the number of transmitted data bursts in a frame. Gilbert discloses monitoring the temperature of a particular portion of the communication device, and Funk discloses monitoring the device temperature of the mobile radio device as a whole. This is not monitoring a number of transmitted data bursts in a frame as recited in claim 1 of the present application.

Moreover, Applicants submit that there would be no motivation to combine Gilbert et al. and Funk. Gilbert et al. discloses a communication device having a particular portion subject to an increase in temperature resulting from the transmissions, whereas Funk discloses monitoring the temperature of the entire mobile radio device. Clearly, these references teach away from each other, and there would be no motivation for one skilled in the art to combine these references. Further, as noted, the combination fails to achieve the claimed invention.

Regarding claims 2-5, Applicants submit that these claims are dependent on independent claim 1 and, therefore, are patentable at least for the same reasons noted previously regarding independent claim 1.

Accordingly, Applicants submit that neither Gilbert et al. nor Funk, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of claims 1-5 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 6-9 have been rejected under 35 USC §103(a) as being unpatentable over Gilbert et al. in view of Funk and further in view of document GSM 04.08.

Applicants respectfully traverse these rejections.

Document GSM 04.08 discloses that classmark may change during an RR session.

Applicants submit that claims 6-9 are dependent on independent claim 1 and, therefore, are patentable at least for the same reasons noted previously regarding independent claim 1. Applicants submit that document GSM 04.08 does not overcome the substantial defects noted previously regarding Gilbert et al. and Funk. Specifically, none of the cited references taken alone or in any proper combination

disclose, suggest or render obvious a method for controlling a transmitter of a portable radio communication that includes monitoring at least one criteria associated heat generated by the transmitter where the at least one monitor criteria includes the number of transmitted data bursts in a frame. Document GSM 04.08 does not disclose or teach one skilled in the art to change the power classmark if the monitored power level or data bursts count is above a predetermined level.

Accordingly, Applicants submit that none of the cited references taken alone or in any proper combination disclose, suggest or render obvious the limitations in the combination of claims 6-9 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claim 10 has been rejected under 35 USC §103(a) as being unpatentable over Gilbert et al. in view of Funk and further in view of Mazur et al. Applicants respectfully traverse this rejection.

Mazur et al. discloses power control apparatus and associated method for a transmitting station operable in a TDMA communication system. The transmitting station includes transmitter branches for communicating communication signal bursts during selected time slots. Communication signal bursts transmitted upon adjacent time slots partially overlaps with that a receiving station is able to extract the information from a communication signal burst transmitted upon an adjacent time slot.

Applicants submit that claim 10 is dependent on independent claim 1 and therefore is patentable over the cited references for the same reasons noted previously regarding independent claim 1. Applicants submit that the Mazur et al. reference does not overcome the significant defects noted previously regarding

Gilbert et al. and Funk. Accordingly, Applicants submit that none of the cited references taken alone or in any proper combination disclose, suggest or render obvious the limitations in the combination of claim 10 of the present application. Applicants respectfully request that this rejection be withdrawn and that this claim be allowed.

Claims 11-18 have been rejected under 35 USC §103(a) as being unpatentable over Gilbert et al. in view of Funk and further in view of Fujiwara et al. Applicants respectfully traverse these rejections.

Fujiwara et al. discloses a radio packet communication system capable of avoiding transmission collision where in a radio packet communication system between a master station and a plurality of slave stations, a contention mode is switched to a polling mode or vice versus in accordance with the amount of transmission data reserved by the slave stations to the master station.

Regarding independent claim 11, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of claim 11 of, inter alia, a method for controlling a transmitter of a portable radio communication apparatus where the transmitter transmits data bursts during one or more of the time slots in a frame, monitoring the number of data bursts transmitted on time slots in a frame, or comparing the monitored number with a predetermined limit and changing the operation of the transmitter if the monitored number falls outside the predetermined limit. As noted previously, Gilbert et al. nor Funk relate at all to transmitting data bursts, or monitoring the number of data bursts transmitted. Similarly, Fujiwara et al. does not disclose or relate to at all transmitting data bursts or monitoring the number

of data bursts transmitted as recited in claim 11 of the present application. Fujiwara et al. discloses a radio packet communication system capable of avoiding transmission collisions. This is not transmitting data bursts or monitoring data bursts as recited in the claims of the present application. Further, Applicants submit there would be no motivation to combine the disclosure of Fujiwara et al. with the disclosures of Gilbert et al. and Funk.

Regarding claims 12-18, Applicants submit that these claims are dependent on independent claim 11 and therefore are patentable for at least the same reasons noted regarding independent claim 11.

Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of claims 11-18 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 19-30 have been rejected under 35 USC §103(a) as being unpatentable over Gilbert et al. in view of Funk and further in view of GSM 04.08. Applicants respectfully traverse these rejections.

Regarding claim 19, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of claim 19 of the present application of, inter alia, a method for controlling a transmitter of a portable radio communication apparatus where the transmitter transmits data bursts during one or more of time slots and the transmission power level is monitored and compared with a predetermined limit where the monitor transmission power level is compared with a predetermined power transmission level and if the monitor transmission power level is above a

predetermined level then the maximum allowed output power level is decreased by changing the power classmark of the portable radio communication apparatus. As noted previously, none of the cited references disclose or relate to transmitting data bursts during a time slot. Further, none of the cited references disclose, suggest or render obvious comparing the monitor transmission level with a predetermined limit and changing the maximum allowed transmission power level by changing the power classmark of a portable radio communication apparatus in response to the monitored transmission level. Accordingly, Applicants respectfully request that these rejections be withdrawn and that claim 19 be allowed.

Regarding claim 21, Applicants submit that none of the cited references taken alone or in any proper combination disclose, suggest or render obvious the limitations in the combination of claim 21 of, inter alia, a radio telephone system that includes a portable radio communication apparatus where the apparatus has a transmitter for transmitting data bursts during one or more time slots in a frame and the system includes monitoring means for monitoring at least one criteria that comprises the number of transmitted data bursts in a frame and where at least one output criterion of the transmitter is responsive to the monitored criterion. As noted previously, these limitations in the claims of the present application are neither disclosed, suggested nor rendered obvious by the cited references. Accordingly, Applicants submit that none of the cited references, taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of claim 21 of the present application. Applicants respectfully request that this rejection be withdrawn and that this claim be allowed.

Regarding claims 22-30, Applicants submit that these claims are dependent on independent claim 21 and, therefore, are patentable over the cited references at least for the same reasons noted regarding claim 21.

Accordingly, Applicants respectfully submit that none of the cited references taken alone or in any proper combination disclose, suggest or render obvious the limitations in the combination of claims 22-30 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Claims 31-42 have been rejected under 35 USC §103(a) as being unpatentable over Gilbert et al. in view of Funk and further in view of Fujiwara et al. Applicants submit that none of the cited references taken alone or in any proper combination disclose, suggest or render obvious the limitations in the combination of these claims of, inter alia, a transmitter for transmitting data bursts during one or more time slots in a frame where the number of transmitted data bursts is monitored and compared with a predetermined limit and the operation of the transmitter changed if the monitor number of transmitter data bursts falls outside a predetermined limit, or decreasing the maximum allowed output transmission power level by changing the power classmark of a portable radio communication apparatus if the monitor transmission power level is above the predetermined level, or sending a power classmark change request to a network responsive to the monitored criterion and the network accordingly changing the power classmark of a portable radio communication apparatus. As noted previously, none of the cited references disclose or relate to transmission of data bursts for monitoring the number of transmitted data bursts. Accordingly, Applicants submit that none of the cited

references taken alone or in any proper combination, disclose, suggest or render obvious the limitations in the combination of claims 31-42 of the present application. Applicants respectfully request that these rejections be withdrawn and that these claims be allowed.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

To the extent necessary, Applicant petitions for an extension of time under 37 CFR §1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees and excess claim fees, to Deposit Account No. 01-2135 (referencing case No. 367.39585X00) and please credit any excess fees to such deposit account.

Respectfully submitted,



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Version with markings to show changes made

IN THE CLAIMS

Please amend the claims as follows.

1. (Amended) A method for controlling a transmitter of a portable radio communication apparatus for communication in a radio communication network employing transmission by a plurality of carrier frequencies in frames each consisting of a predetermined number of time slots, the transmitter transmitting data bursts during one or more of said time slots in a frame, the method comprising:
monitoring at least one criterion associated with heat generated by the transmitter; and [,]
providing a signal responsive to the at least one monitored criterion for controlling at least one output criterion of the transmitter,
wherein one of the at least one monitored criterion comprises the number of transmitted data bursts in a frame.

19. (Amended) A method for controlling a transmitter of a portable radio communication apparatus for communication in a radio communication network employing transmission by a plurality of carrier frequencies in frames each consisting of a predetermined number of time slots, the transmitter transmitting data bursts during one or more of said time slots, the method comprising:
monitoring the transmission power level of the communication apparatus; and
comparing the monitored transmission power level with a pre-determined limit

and changing the maximum allowed transmission power level in response to the monitored transmission power level,

wherein the monitored transmission power level is compared with a pre-determined power transmission level and if the monitored transmission power level is above said pre-determined level then the maximum allowed output transmission power level is decreased by changing the power classmark of the portable radio communication apparatus.

21. (Amended) A radio telephone system comprising a portable radio communication apparatus for communication in a radio communication network employing transmission by a plurality of carrier frequencies in frames each consisting of a predetermined number of time slots, the apparatus having a transmitter for transmitting data bursts during one or more of said time slots in a frame, the system including monitoring means for monitoring at least one criterion associated with heat generated by the transmitter, at least one output criterion of the transmitter being responsive to the monitored criterion, wherein one of the at least one monitored criterion comprises the number of transmitted data bursts in a frame.

39. (Amended) A radio telephone system comprising a portable radio communication apparatus for communication in a radio communication network employing transmission by a plurality of carrier frequencies in frames each consisting of a predetermined number of time slots, the apparatus having a transmitter for transmitting data bursts during one or more of said time slots in a frame, the system including monitoring means for monitoring the transmission power

level of the transmitter and comparing means for comparing the monitored transmission power level with a pre-determined limit and a processor for changing the maximum available transmission power level of the communication apparatus in response to the monitored transmission power level, wherein the monitored transmission power level is compared with a pre-determined power transmission level and if the monitored transmission power level is above said pre-determined level then the maximum allowed output transmission power level is decreased by changing the power classmark of the portable radio communication apparatus.

41. (Amended) A portable radio communication apparatus operable to communicate with a radio communication network employing transmission by a plurality of carrier frequencies in frames each consisting of a predetermined number of time slots, the apparatus having a transmitter for transmitting data bursts during one or more of said time slots in a frame, and including monitoring means for monitoring at least one criterion associated with the heat generated by the transmitter, at least one output criterion of the transmitter being responsive to the monitored criterion, wherein one of the at least one monitored criterion comprises the number of transmitted data bursts in a frame.